REMARKS

Claims 1-20, 22-25, and 27-29 are currently pending in the subject application and are presently under consideration. Claims 1, 10, 17, 19, 23, and 29 have been amended as shown on pages 2-5 of the Reply. Claims 21 and 26 have been cancelled.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I.   Objection of Claims 17 and 23

Claims 17 and 23 stand objected to for minor informalities. Withdrawal of this objection is respectfully requested in view of the amendments herein.

II.   Rejection of Claims 1-7, 9-12, 14-24, 26 and 28-29 Under 35 U.S.C. §103(a)

Claims 1-7, 9-12, 14-24, 26 and 28-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babu *et al.* (US 6,122,639) hereinafter Babu, in view of Mullins (US 6,999,956). Withdrawal of this rejection is requested for at least the following reasons. Babu and Mullins either alone or in combination, fail to teach or suggest all features of the subject claims.

> To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined)** *must teach or suggest all the claim limitations*. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art and not based on the applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (emphasis added).

Applicant's claimed invention relates to systems and methods that map industrial device data structures to database tables that can be accessed *via* a standard database interface. To this end, independent claim 1 recites a system that facilitates data exchange with industrial devices

via a standard database connection, comprising *a mapping component* that represents data stored within an industrial device as a database table and an *intelligence component that facilitates generating and mapping data to the at least one database table* and an interface component that provides access to the database table *via* the standard database connection. Babu and Mullins are both silent regarding such novel aspects of the claimed invention.

Babu discloses mechanisms for network device information collection and change detection. A data collection engine builds an information set by aggregating information subsets by obtaining a device type identifier from the device, mapping the device type identifier to a plurality of information sets associated with device type identifier, obtaining current values for the information sets from the device, and storing the current values in a current information set value table of the database in association with the device type identifier. The Examiner concedes that Babu does not teach all limitations recited in the subject independent claims, and attempts to cure the deficiencies of Babu with Mullins. However, Mullins merely relates to correlating or translating one type of database to another type of database or to an object programming application. Correlating or translating involves relational to object translation, object to object translation, relational to relational, or a combination of the above; and this reference does not make up for the aforementioned deficiencies of Babu.

At page 3 of the Office Action, the Examiner incorrectly asserts that Babu substantially teaches *a mapping component that represents data stored within an industrial device as a database table.* Applicant's representative avers to the contrary. The cited reference provides for storing values received (in the detailed device data) in the table of database according to table names and columns that are specified in the device class to MIB (management information bases) Set mapping (Column 13, lines 5-8). Hence Babu simply provides for collecting information or data about a device in a network and storing the data in the table of database according to table names and columns. The types of information a device can provide depend on the management information bases (MIBs) that are supported by the device. An MIB specifies a group of objects and each object defines a group of data types. A device supports a MIB if the device is capable of supplying the type of information defined in the objects specified in the MIB. Support for MIBs varies from device to device. A device may only support a subset of a MIB. Hence the data provided by the device is a function of the objects that the particular device possesses and the data types that those objects support. This data provided is stored in the

table of database according to table names and columns that are specified in the device class to MIB set. But nowhere does Babu teach *a mapping component that represents data stored within an industrial device as a database table* as in applicant's claimed invention. The data mapping component discover data structures within an industrial devices and transform these data structures into database tables by storing respective elements of a data structure column-by-column within a record of a database table and if more than one data structure is mapped, respective rows of the database table generally correspond to respective data structures.

At page 5 of the Office Action, it is erroneously asserted that Babu and Mulin teach an *intelligence component* that facilitates mapping, reading and writing the industrial device data. The Office Action cites multiple sections of the references in support of such contention. The values received in the detailed device data are stored in the table of database according to table names and columns that are specified in the device class to MIB (management information bases) set mapping (Babu; Column 13, lines 5-8). The mapping system portion provides an interface permitting an authorized user to edit or create tables, fields or attributes of a data map for an object (Mullins; column 49, lines 48-50). Hence the cited reference(s) merely provide for mapping, reading and writing in the industrial device data , but do NOT contemplate an *intelligence component that facilitates generating and mapping data to the at least one database table and determines when, how and which data structures should be transformed to corresponding database tables and also retrieves suitable protocols and configuration for accessing the database tables* as in applicants' claimed invention.

In view of at least the foregoing, it is readily apparent that both Babu and Mullins fail to teach or suggest all aspects of the claimed invention. Accordingly, it is respectfully requested that this rejection of independent claims 1, 10, 19, 23 and 29 (and the claims that depend there from) should be withdrawn.

III.   Rejection of Claims 8 and 27 Under 35 U.S.C. §103(a)

Claims 8 and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babu and Mullins as applied to claim 1 above, and further in view of Hickman *et al.* (US 6,523,036) hereinafter Hickman. It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Babu, Mullins nor Hickman either alone or in combination teach or suggest all aspects of applicant's invention as set forth in the subject claims. Hickman relates to

an incrementally scalable database system and method and does not make up for the aforementioned deficiencies of Babu and Mullins with respect to independent claim 1 (from which claim 8 depend) and independent claim 23 (from which claim 27 depend). Thus it is submitted, the subject invention as recited in claim 8 and 27 is not obvious over the combination of Babu, Mullins and Hickman. Accordingly, this rejection should be withdrawn.

IV.   Rejection of Claims 13 and 25 Under 35 U.S.C. §103(a)

Claims 13 and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babu and Mullins as applied to claim 10 above, and further in view of Venkatesh *et al.* (US 6,256,637) hereinafter Venkatesh. It is respectfully requested that this rejection be withdrawn for at least the following reasons. Babu, Mullins and Venkatesh either alone or in combination do not teach or suggest all aspects set forth in the subject claims. Venkatesh relates to architecture of transactional virtual machine and does not make up for the aforementioned deficiencies of Babu and Mullins with respect to independent claim 10 (from which claim 13 depend) and independent claim 23 (from which claim 25 depend). Thus it is submitted, the subject invention as recited in claim 13 and 25 is not obvious over the combination of Babu, Mullins and Venkatesh. Accordingly, it is respectfully submitted that this rejection should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ALBRP330US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

AMIN, TUROCY & CALVIN, LLP

/Himanshu S. Amin/
Himanshu S. Amin
Reg. No. 40,894

AMIN, TUROCY & CALVIN, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731